ABSTRAK

EKO SUCIPTO: Pengaruh Latihan Beban dan Kekuatan Otot terhadap *Hypertrophy* Otot dan Ketebalan Lemak. **Tesis, Yogyakarta: Program Pascasarjana, Universitas Negeri Yogyakarta, 2014.**

Penelitian ini bertujuan untuk mengetahui: (1) perbedaan pengaruh antara latihan beban metode *compound set* dan *circuit training*, (2) perbedaan pengaruh kekuatan otot tinggi dan rendah, dan (3) interaksi antara metode latihan beban dan kekuatan terhadap hasil *hypertrophy* otot dan ketebalan lemak.

Penelitian ini merupakan metode eksperimen dengan rancangan faktorial 2 x 2. Populasi penelitian adalah 56 *members* yang programnya *hypertrophy* otot dari *Fitness Centre* GOR FIK UNY dan *Fitness Centre* Club Arena Hotel Jayakarta Yogyakarta. Sampel berjumlah 28 *members* ditentukan dengan teknik *Purposive Rondom Sampling*. Variabel penelitian terdiri dari tiga variabel*:* variabel *independent* yakni metode latihan beban dengan metode *compound set* dan *circuit training*, variabel *atribut* yakni kekuatan otot serta variabel *dependent* yakni hasil *hypertrophy* otot dan ketebalan lemak. Seluruh data penelitian diperoleh melalui tes dan pengukuran. Teknik analisis data yang digunakan adalah Analisis Varian (ANAVA) dilanjutkan dengan uji rentang *Newman Keuls* pada taraf signifikan $\alpha = 0{,}05$.

Hasil penelitian menunjukkan bahwa: (1) ada perbedaan pengaruh antara latihan beban dengan *compound set* dan *circuit training* terhadap *hypertrophy* otot, terbukti nilai $p = 0{,}000 < 0.05$ dan ketebalan lemak, terbukti nilai $p = 0{,}001 < 0{,}05$; (2) ada perbedaan pengaruh kekuatan otot tinggi dan rendah terhadap *hypertrophy* otot dan ketebalan lemak, terbukti nilai $p = 0{,}007 < 0.05$ dan ketebalan lemak, terbukti nilai $p = 0{,}002 < 0{,}05$; (3) ada interaksi antara metode latihan beban dan kekuatan otot terhadap *hypertrophy* otot, terbukti nilai $p = 0{,}000 < 0{,}05$ dan ketebalan lemak, terbukti nilai $p = 0{,}000 < 0.05$. Kelompok *members* yang memiliki kekuatan tinggi lebih tepat jika dilatih dengan metode *circuit training*, sedangkan kelompok *members* yang memiliki kekuatan otot rendah lebih baik jika dilatih dengan metode *compound set*. Jadi dapat disimpulkan bahwa metode *compound set* lebih baik untuk latihan *hypertrophy* otot. Metode *circuit training* tidak cocok untuk latihan *hypertrophy* tetapi lebih baik untuk latihan *fat loss* dan daya tahan otot.

Kata Kunci: *metode latihan beban, kekuatan otot, hasil hypertrophy otot dan ketebalan lemak.*

ABSTRACT

EKO SUCIPTO : *The Effect of Weight Training and Muscle Strength on Muscle Hypertrophy and Fat Thickness*. **Thesis. Yogyakarta: Graduate School, Yogyakarta of State University, 2014**.

This study aims to find out: (1) the differences between the effect of weight training method and circuit training compound set, (2) differences in the effect of high and low muscle strength, and (3) the interaction among methods of weight training and muscle strength on the muscle hypertrophy and fat thickness.

This study is an experiment with 2 x 2 factorial design. The population was 56 members of Sport Hall Fitness Centre Faculty, of Sports Science, State University of Yogyakarta and Fitness Centre Club Arena Hotel Jayakarta Yogyakarta. A sample of 28 members was established using the purposive random sampling technique. The variables in this study consisted the independent variable, i.e the method of weight training and circuit training compound sets; attribute variable i.e muscle strength, and the dependent variable i.e the result of muscle hypertrophy and fat thickness. The data were obtained through tests and measurement. The data analysis technique used in this study was the analysis of variance (ANOVA) followed by Newman Keuls range test at the significance level of $\alpha = 0.05$.

The results show that: (1) there is a significant effect difference between the weight training and circuit training compound set on the result of muscle hypertrophy, as evidenced by the value of $p = 0.000 < 0.05$, and the thickness of the fat, as evidenced by the value of $p = 0.001 < 0.05$; (2) there is a difference in the effect of high and low muscle strength on the results of muscle hypertrophy and fat thickness, as evidenced by the value of $p = 0.007 < 0.05$; and the thickness of the fat, as evidenced by the value of $p = 0.002 < 0.05$; (3) there is a significant interaction between the weight training method and muscle strength on the muscle hypertrophy results, as evidenced by the value of $p = 0.000 < 0.05$ and fat thickness, as evidenced by the value of $p = 0.000 > 0.05$. The members who have a high strength are more accurately trained using the circuit training method, while members who have low muscle strength are better trained using the method of compound sets. So from the above results it can be concluded that the compound set method is better for muscle hypertrophy training. The circuit training method is not suitable for hypertrophy training but it is better for fat loss exercise and muscular endurance.

Keywords: *method of weight training, muscle strength, muscle hypertrophy results and fat thickness*.